

**REMARKS**

Claims 1-6 have been examined. Claims 1, 2, 4, 5 and 6 have been rejected under 35 U.S.C. § 102(b) and claim 3 has been rejected under 35 U.S.C. § 103(a). Claim 7 is withdrawn as being directed to a non-elected invention.

**I. Rejections under 35 U.S.C. § 102(b) in view of JP 58-203033 (“JP ‘033”)**

The Examiner has rejected claims 1, 5 and 6 under 35 U.S.C. § 102(b) as allegedly being anticipated by JP ‘033.

**A. Claim 1**

Applicant submits that claim 1 is patentable over the cited reference. For example, claim 1 recites, “a power supply that passes an electric current through the thin blade to cause the thin blade to heat.”

As shown in Figure 5 of JP ‘033, the reference disclose a blade 33, a heater block 30 attached to the blade 33 and an advancing and retracting means 35 that is used to advance or retract the cutting blade 33 to cut the rubber sheet S (Abstract; Fig. 5). The heater block 30 is heated by a heater 31 and the heater block 30 then transfers the heat to the blade 33 in a conventional manner (Fig. 6). Accordingly, the blade 33 does not pass an electric current (i.e., the heater block 30 does not pass an electric current through the thin blade to cause it to heat).

As set forth in paragraphs [0019]-[0022] of the present Application, when the strip shaped blade itself heats by an electric current, as in the claimed invention, the heating and heat release is faster and more uniform. Furthermore, the claimed strip shaped blade is durable as

compared to string-like blades used in conventional heating methods (see paras. [0010]-[0012] of present Application). The shape also ensures more stable blade temperatures.

At least based on the foregoing, Applicant submits that claim 1 is patentable over the cited reference.

**B. Claims 5 and 6**

Applicant submits that claims 5 and 6 are patentable at least by virtue of their dependency.

**II. Rejections under 35 U.S.C. § 102(b) in view of U.S. Patent No. 5,429,163 to Frenkel et al. (“Frenkel”)**

The Examiner has rejected claims 1, 2 and 4 under 35 U.S.C. § 102(b) in view of Frenkel.

**A. Claim 1**

Claim 1 recites, “a strip shaped metallic thin blade.”

The Examiner maintains that element 2 of Frenkel discloses the claimed blade. Applicant submits, however, that element 2 is a cutting part formed of a hollow metal ball 3 (Fig. 2; col. 6, lines 3-8). Thus, the alleged blade 2 is not strip shaped, as recited in claim 1.

Furthermore, claim 1 recites, “a power supply that passes an electric current through the thin blade to cause the thin blade to heat.”

Frenkel discloses an electric heater 5 provided inside the metal ball 3. The electric heater 5 does not pass an electric current through the alleged blade 2. Rather, a current conducting

layer of the electric heater 5 is evaporated over the outside coating layer 4B (col. 6, lines 8-18). As noted above, in paragraphs [0019]-[0022] of the present Application, it is disclosed that when the strip shaped blade itself heats by an electric current, as in the claimed invention, the heating and heat release are faster and more uniform. Furthermore, the claimed strip shaped blade is durable as compared to string-like blades used in conventional heating methods (see paras. [0010]-[0012] of present Application), and the shape ensures more stable blade temperatures.

At least based on the foregoing, Applicant submits that claim 1 is patentable over the cited reference.

**B. Claims 2 and 4**

Applicant submits that claims 2 and 4 are patentable over the cited reference at least by virtue of their dependency.

Furthermore, claim 4 recites, “a tension applying part that applies tension to the thin blade.” The Examiner maintains that Figures 6 and 7 of Frenkel disclose the claimed tension applying part. Frenkel discloses a wire tensioning means 30. Such means 30, is merely used to apply tension to a wire. There is no teaching or suggestion with regard to tension of a thin blade. Thus, Applicant submits that claim 4 is patentable for at least this additional reason.

**III. Rejection under 35 U.S.C. § 103(a) in view of JP ‘033 and U.S. Patent No. 4,922,774 to Oldeman (“Oldeman”)**

The Examiner has rejected claim 3 under 35 U.S.C. § 103(a) as allegedly being unpatentable over JP ‘033 in view of Oldeman. Since, however, claim 3 is dependent upon

claim 1, and Oldeman fails to cure the deficient teachings of JP '033 at least with regard to claim 1, Applicant submits that claim 3 is patentable at least by virtue of its dependency.

#### **IV. Newly Added Claim**

By this Amendment, Applicant has added new claim 8 to further define the structure of the claimed tension applying part. Applicant has also added claim 9 and new independent claim 10. Applicant submits that claim 10 is patentable for at least analogous reasons as claim 1 and claim 9 is patentable at least by virtue of its dependency.

#### **V. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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